



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,775	03/15/2002	Jean-Christophe Jacques Kling	02-001	4985

7590 09/27/2004

Jonathan E. Olson,  
Jonathan E. Olson and Associates  
3959 EIGHTH STREET N.E.  
WILLMAR, MN 56201

EXAMINER

VARNER, STEVE M

ART UNIT PAPER NUMBER

3635

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/099,775

Applicant(s)

KLING, JEAN-CHRISTOPHE  
JACQUES

Examiner

Steve M Varner

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,7-10,12-25 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15-24, are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson.

Regarding claim 1, 15-24, Nelson shows first (14), second (14), and third (30) complete struts substantially aligned along first, second and third axes (AB, BC, and AC) respectively, the axes all contained within a base plane, the first and third axes forming a first acute base angle CAB, the first and second axes forming a second acute base angle ABC, the second and third axes forming a third acute base angle BCA, one (30) or more of the struts each comprising at least two rigid pieces able to move apart so as to produce a strut elongation, a first node A (lower 31) engaging the first and third complete struts, the first node A large enough to maintain the first acute base angle CAB at a first positive value about equal to  $(jx20.9 + kx31.7 + mx36 + nx37.4)$  where j, k, m, and n are each an integer less than three, a second node B (32) engaging the first and second complete struts, the second node B large enough to maintain the second acute base angle ABC at a second positive value about equal to  $(qx20.9 + rx31.7 + sx36 + tx37.4)$  where q, r, s, and t are each an integer less than three, a third node C (upper 31) engaging the second and third complete struts, the third node C

Art Unit: 3635

large enough to maintain the third acute base angle BCA at a third positive value less than 60 degrees, and an extension (15) engaging the triangular base and comprising a fourth complete strut substantially aligned along a fourth axis that forms a substantially acute angle  $> 3$  degrees with the base plane (Fig. 1, 2).

Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by Richter.

Richter shows means (16) for assembling and supporting first (15), second (15) and third (15) rigid struts substantially aligned in a common plane and means (16) for supporting a fourth (36) complete strut so as to extend out of the common plane at a substantially acute angle  $> 3$  degrees.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 7-10, 12-14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson.

Regarding claims 2-4, Nelson shows the basic claimed structure. Nelson does not show the angle between the fourth axis and first axis, angle DAB, or an angle between the fourth axis and another of the axes substantially equal to a reference angle selected from a group consisting of 13.3, 15.5, 20.9, 22.2, 31.7, 35.3, 36, 37.4, 37.8, 41.8, 44.5, 45, 54.7, 58.3, 60, 63.4, 65.9, 69.1, 70.5, 72, 75.5, 76.7, 79.2, 82.2, 90, 97.8, 100.8, 103.3, 104.5, 108, 109.5, 110.9, 114.1, 116.6, 120, 121.7, 125.3, 135, 135.5,

Art Unit: 3635

138.2, 142.2, 142.6, 144, 144.7, 148.3, 155.9, 157.8, 159.1, 164.5, and 166.7. It would have been an obvious design choice to use these angle measurements for angle DAB depending on the desired dimension of a cell.

Regarding claims 7-10, 14,  $j=0$ ,  $j=1$ ,  $m=0$ ,  $j$  and  $q$  both even,  $n$  and  $t$  both even are obvious design choices to produce desired angles.

Regarding claim 12, Nelson shows the second node (B) includes first and second couplings respectively engaging the first (14) and second (14) complete struts. The couplings may be capable of retaining the first and second struts under a tension of 100 Newtons along respective axis (Fig. 1, 2).

Regarding claim 13, Nelson does not show non-metallic struts. Non-metallic struts such as fiberglass are well known in the art. It would have been an obvious design choice to use fiberglass for its strong tensile properties.

### ***Claim Objections***

Claims 5, 6, 11, objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed 6/21/04 have been fully considered but they are not persuasive.

Applicant argues that CAB, ABC, BCA, are all acute.

Examiner has chosen three struts, 14, 14, and 30, which appear to be in a position of all acute angles.

Examiner points out that it is not bends in the legs, which are forming the angles, but rather the angles are between legs or struts.

Applicant claims that Richter does not show means for assembling.

Examiner maintains that Richter does show means for assembling (16) (Fig. 2). Members (15) are assembled with (16).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomsen reveals a method of joining tubular steel lattice members and a device for use in the execution of the method. Evans shows construction module, panel, and system. Aiken teaches geodesic domes and improved joints therefore.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3635

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve M Varner whose telephone number is 703 308-1894. The examiner can normally be reached on M-F 7:30-4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D Friedman can be reached on 703 308-0839. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1113.

SV



September 15, 2004



Carl D. Friedman  
Supervisory Patent Examiner  
Group 3600